

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Rory A.J. Curtis

Serial No.: N/A

Filed: Herewith

For: 25466, A HUMAN TRANSPORTER FAMILY  
MEMBER AND USES THEREFOR

Attorney Docket No.: MPI2001-019P1RCP1(M)

Assistant Commissioner for Patents  
Box Sequence  
Washington, D.C. 20231

**TRANSMITTAL LETTER FOR DISKETTE CONTAINING COMPUTER READABLE  
FORM OF SEQUENCE LISTING**

Dear Sir:

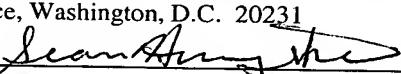
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Express Mail" mailing label number EV063477560US

Date of Deposit February 12, 2002

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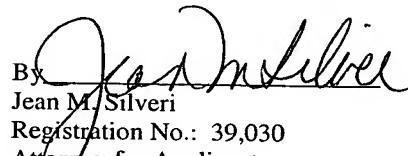
Signature



Sean Hunziker

Please Print Name of Person Signing

MILLENNIUM PHARMACEUTICALS, INC.

  
By Jean M. Silveri  
Jean M. Silveri  
Registration No.: 39,030  
Attorney for Applicant  
Millennium Pharmaceuticals, Inc.  
75 Sidney Street  
Cambridge, MA 02139  
Telephone: 617-679-7336  
Facsimile: 617-551-8820

SEQUENCE LISTING

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Millennium Pharmaceuticals Inc.

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Therefor

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 Ala Ser Phe Ala Thr Asn Ile Ser Glu Leu Tyr Leu Thr Phe Gly Val  
 85 90 95  
 Ile Thr Gly Leu Gly Phe Ala Phe Ile Tyr Leu Pro Ala Ile Val Ile  
 100 105 110  
 Ile Thr Ser Tyr Phe Glu Lys Lys Arg Ser Leu Ala Thr Gly Ile Ala  
 115 120 125  
 Val Ala Gly Ser Gly Val Gly Thr Phe Val Leu Ala Pro Leu Asn Pro  
 130 135 140  
 Asp Gln Phe Leu Ile Glu Asn Tyr Gly Ser Lys Trp Arg Gly Ala Leu  
 145 150 155 160  
 Leu Phe Phe Gly Gly Met Gly Tyr Val Ile Ala Ile Trp Ser Val Ala  
 165 170 175  
 Ile Val Leu Asn Cys Cys Ile Ala Gly Ala Leu Phe Arg Pro Leu Pro  
 180 185 190  
 Ser Glu Lys Val Lys Gln Thr Lys Leu Ala Lys Ala Glu Glu Pro Lys  
 195 200 205  
 Glu Ala Leu Lys Ser Lys Glu Asn Glu Ala Ser Glu Ser Ile Asp Ser  
 210 215 220  
 Ile Arg Ser Ala Ala Lys Ala Ile Val Ser Pro Glu Thr Pro Ala Leu  
 225 230 235 240  
 Ser Leu Ser Pro Glu Leu Thr Pro Lys Lys Asp Gln Leu Gln Lys Leu  
 245 250 255  
 Leu Lys Thr Ser Arg Thr Arg Ser Ser Asn Gly Ala Lys Leu Leu Asp  
 260 265 270  
 Phe Ser Val Leu Lys Asp Ala Arg Gly Phe Leu Leu Tyr Ala Ser Ser  
 275 280 285  
 Gly Ser Leu Ala Ser Leu Gly Thr Gln Leu Phe Leu Pro Gly Ser Ile  
 290 295 300  
 Phe Leu Val Asn Phe Ala Lys Ser Leu Gly Glu Ser Leu Ser Ser Val  
 305 310 315 320  
 Lys Ser Lys Glu Ala Ala Phe Leu Leu Ser Ile Leu Gly Asp Ser Ser  
 325 330 335  
 Asp Lys Glu Gly Phe Gly Gly Ile Phe Ala Arg Pro Ala Thr Leu Leu  
 340 345 350  
 Ser Phe Leu Gly Phe Val Ala Asn Leu Lys Glu Thr Lys Ser Asn Arg  
 355 360 365  
 Pro Val Leu Ile Tyr Leu Leu Ser Leu Cys Ser Ile Val Ala Val Val  
 370 375 380  
 Ile Asn Gly Ile Leu Ser Arg Leu Ala Ser Ala Leu Ala Gly Ser Arg  
 385 390 395 400  
 Lys Glu Lys Lys Ile Lys Ser Met Ile Asp Lys Ile Glu Leu Lys Ser  
 405 410 415  
 Thr Phe Trp Gly Leu Phe Leu Phe Ser Leu Phe Phe Gly Val Gly Phe  
 420 425 430  
 Gly Ser Lys Lys Ala Val Val Ile Leu Ala Leu Gly Phe Leu Leu Phe  
 435 440 445  
 Ser Ile Leu Tyr Ala Ile Pro Val Val Gly Leu Gln Lys Tyr Ser Ser  
 450 455 460

100% IDENTICAL

Ala Leu Gly Leu Thr Glu Thr Asp Ala Ser Thr Leu Ile Glu Ala Ile  
465 470 475 480  
Ala Val Leu Asn Ile Ile Gly Arg Pro Leu Ala Gly Leu Leu Ala Asp  
485 490 495  
Lys Thr Lys Asn Arg Lys Leu Ala Ile Tyr Asn Leu Ser Leu Ile Leu  
500 505 510  
Cys Gly Leu Phe Val Ala Phe Ala Pro Leu Ala Thr Ile Phe Leu Gly  
515 520 525  
Leu Ala Phe Tyr Cys Val Leu Phe Gly Ser Ile Val Phe Leu Leu Ala  
530 535 540  
Tyr Ala Phe Lys Gly Phe Cys Lys Gly Ser Tyr Ile Ala Leu Thr Ser  
545 550 555 560  
Val Ile Ala Val Asp Leu Thr Gly Leu Asp Lys Leu Ser Asn Ala Phe  
565 570 575  
Gly Leu Leu Leu Phe Gln Gly Val Ala Thr Leu Val Gly Pro Pro  
580 585 590  
Ile Ala Gly Leu Leu Lys Asp Leu Thr Gly Ser Tyr Lys Val Ser Phe  
595 600 605  
Tyr Phe Ala  
610

<210> 5  
<211> 487  
<212> PRT  
<213> homo sapiens

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Gly Gly Trp Gly Trp Met Ile Val Ile His Phe Phe Leu Val Asn Val  
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Phe Val Met Gly Met Thr Lys Thr Phe Ala Ile Phe Phe Val Val Phe  
35 40 45  
Gln Glu Glu Phe Glu Gly Thr Ser Glu Gln Ile Gly Trp Ile Gly Ser  
50 55 60  
Ile Met Ser Ser Leu Arg Phe Cys Ala Gly Pro Leu Val Ala Ile Ile  
65 70 75 80  
Cys Asp Ile Leu Gly Glu Lys Thr Thr Ser Ile Leu Gly Ala Phe Val  
85 90 95  
Val Thr Gly Gly Tyr Leu Ile Ser Ser Trp Ala Thr Ser Ile Pro Phe  
100 105 110  
Leu Cys Val Thr Met Gly Leu Leu Pro Gly Leu Gly Ser Ala Phe Leu  
115 120 125  
Tyr Gln Val Ala Ala Val Val Thr Thr Lys Tyr Phe Lys Lys Arg Leu  
130 135 140  
Ala Leu Ser Thr Ala Ile Ala Arg Ser Gly Met Gly Leu Thr Phe Leu  
145 150 155 160  
Leu Ala Pro Phe Thr Lys Phe Leu Ile Asp Leu Tyr Asp Trp Thr Gly  
165 170 175  
Ala Leu Ile Leu Phe Gly Ala Ile Ala Asn Leu Val Pro Ser Ser  
180 185 190  
Met Leu Leu Arg Pro Ile His Ile Lys Ser Glu Asn Asn Ser Gly Ile  
195 200 205  
Lys Asp Lys Gly Ser Ser Leu Ser Ala His Gly Pro Glu Ala His Ala  
210 215 220  
Thr Glu Thr His Cys His Glu Thr Glu Glu Ser Thr Ile Lys Asp Ser  
225 230 235 240  
Thr Thr Gln Lys Ala Gly Leu Pro Ser Lys Asn Leu Thr Val Ser Gln  
245 250 255  
Asn Gln Ser Glu Glu Phe Tyr Asn Gly Pro Asn Arg Asn Arg Leu Leu

2000-2002-2003-2004-2005-2006-2007-2008

260	265	270
Leu Lys Ser Asp Glu Glu Ser Asp Lys Val Ile Ser Trp Ser Cys Lys		
275	280	285
Gln Leu Phe Asp Ile Ser Leu Phe Arg Asn Pro Phe Phe Tyr Ile Phe		
290	295	300
Thr Trp Ser Phe Leu Leu Ser Gln Leu Ala Tyr Phe Ile Pro Thr Phe		
305	310	315
His Leu Val Ala Arg Ala Lys Thr Leu Gly Ile Asp Ile Met Asp Ala		
325	330	335
Ser Tyr Leu Val Ser Val Ala Gly Ile Leu Glu Thr Val Ser Gln Ile		
340	345	350
Ile Ser Gly Trp Val Ala Asp Gln Asn Trp Ile Lys Lys Tyr His Tyr		
355	360	365
His Lys Ser Tyr Leu Ile Leu Cys Gly Ile Thr Asn Leu Leu Ala Pro		
370	375	380
Leu Ala Thr Thr Phe Pro Leu Leu Met Thr Tyr Thr Ile Cys Phe Ala		
385	390	395
Ile Phe Ala Gly Gly Tyr Leu Ala Leu Ile Leu Pro Val Leu Val Asp		
405	410	415
Leu Cys Arg Asn Ser Thr Val Asn Arg Phe Leu Gly Leu Ala Ser Phe		
420	425	430
Phe Ala Gly Met Ala Val Leu Ser Gly Pro Pro Ile Ala Gly Trp Leu		
435	440	445
Tyr Asp Tyr Thr Gln Thr Tyr Asn Gly Ser Phe Tyr Phe Ser Gly Ile		
450	455	460
Cys Tyr Leu Leu Ser Ser Val Ser Phe Phe Phe Val Pro Leu Ala Glu		
465	470	475
Arg Trp Lys Asn Ser Leu Thr		
485		

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<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> consensus

<221> VARIANT

<222> 1

<223> The amino acid at position 1 can be glu.

<221> VARIANT

<222> 3

<223> The amino acid at position 3 can be ser.

<221> VARIANT

<222> 4

<223> The amino acid at position 4 can be phe.

<221> VARIANT

<222> 5

<223> The amino acid at position 5 can be ala.

<400> 6

Asp Gly Gly Trp Gly Trp  
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<210> 7

100345420000000000

<211> 16  
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<220>  
<223> consensus

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<223> The amino acid at position 5 can be lys.

<221> VARIANT  
<222> 6  
<223> The amino acid at position 6 can be leu.

<221> VARIANT  
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<223> The amino acid at position 11 can be ala.

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<221> VARIANT  
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<223> Xaa = any amino acid

<400> 8  
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1 5 10 15  
Xaa Xaa Xaa Xaa Xaa Leu  
20